

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendments, claims 1, 4, 7, 8, 10-16 and 31-34 are pending in the application, with claims 1, 12 and 13 being the independent claims.

Claims 1 and 13 have been amended to recite "wherein said coated, wood-free paper has less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate" to make explicit that which is implicit. Support can be found, for example, at page 14 of the specification.

Claim 12 has been amended to recite "reducing wear of the coated, wood-free paper-making wire" to make explicit that which is implicit. Support can be found, for example, at page 4, lines 26-27.

Claim 16 has been amended to delete the term "fine" to be consistent with the wording of the preamble of the claims from which it depends, namely claims 13-15. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider the rejections and that they be withdrawn.

Acknowledgment of Priority Under 35 U.S.C. § 119

Applicant thanks the Examiner for acknowledging the claim of foreign priority under 35 U.S.C. § 119 and that all certified copies of priority documents have been received. Thus, foreign priority has been perfected.

Rejections Under 35 U.S.C. § 103(a)

Claims 12 and 32 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,893,372 ("Hampl") in view of U.S. Patent No. 3,608,559 ("Briskin") and U.S. Patent No. 4,303,084 ("Simon") in item 7 of the Office Action. Applicant respectfully traverses this rejection.

Applicant notes that this 35 U.S.C. §103(a) rejection is over a combination of three documents. However, although the Examiner in the rejection discusses combining Hampl with Briskin, and Hampl with Simon, the Examiner does not point to any motivation or suggestion to combine all three documents together. Therefore, the Examiner has not satisfied his burden of establishing a *prima facie* case of obviousness in regards to the combination of the documents.

Claim 12 is drawn to a "method of reducing wear of a coated, wood-free paper-making wire wherein said method comprises incorporating calcium oxalate into said coated, wood-free paper or into a coating color used in said coated, wood-free paper wherein said calcium oxalate comprises 10 to 100% by weight of total pigment, and reducing wear of the coated, wood-free paper-making wire. A paper-making wire is the "moving screen at the wet end of a paper machine where the sheet is formed" (page 15 of Exhibit 1, submitted with the Amendment and Reply Under 37 C.F.R. § 1.111, filed April 25, 2001).

Hampl discloses a cigarette wrapping paper containing a white pigment in combination with a black pigment to increase opacity (col. 4, lines 23-28). The white pigment may comprise calcium carbonate (col. 5, lines 6-8), whereas the black pigment may be carbon or iron oxide (col. 5, lines 54-56). However, Hampl does not disclose paper-making wires or screens, and certainly does not disclose reducing wear of a coated, wood-free

paper making wire. As acknowledged by the Examiner, Hampl also "does not teach the addition of calcium oxalate to the pulp and/or coating of the paper."

Briskin relates to a smoking product formed by treating oxidized cellulosic material with, for example, an oxalic acid and a calcium compound. Abstract. Insoluble calcium oxalate can be formed in the smoking product and serves as a mineralizing or ashing component (col. 4, lines 5-25). Briskin discloses that oxalates are "effective ash-producing agents" (col. 4, lines 64-67).

However, Briskin does not disclose reducing wear of a coated, wood-free paper-making wire, nor remedies the deficiencies of Hampl to suggest the claimed method. There is no teaching or suggestion in Briskin of the unexpected finding by the inventors of the present application of the calcium oxalate reducing wear of the paper-making wire. Thus, one of ordinary skill in the art would not look to Briskin (or Hampl), which relate to smoking products, when addressing a method of reducing wear on a coated, wood-free paper-making wire.

Simon relates to coating of a polymer-contained latex for "limiting in a predictable manner the free burning time of the treated cigarette." Abstract. There is no mention of any pigments in the Simon document. Simon fails to remedy the deficiencies of Hampl and Baskin to suggest the presently claimed method of reducing wear of a coated, wood-free paper-making wire . . . incorporating calcium oxalate into said coated, wood-free paper.

Thus, a *prima facie* case of obviousness has not been established, and the 35 U.S.C. § 103(a) rejection over Hampl in view of Briskin, and further in view of Simon should be withdrawn.

Claims 1, 4, 7, (1, 4, 31), 10 (1, 4, 31), 11 (1, 4, 31)-16 and 31-34 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hampl in view of Briskin in item 8 of the Office Action. Applicant respectfully traverses this rejection.

Claim 1 is directed to a "method of reducing combustion residue of coated, wood-free paper having an ISO brightness of 80% or more and an opacity of 80% or more, wherein said method comprises making said coated, wood-free paper with a coating pigment comprising calcium oxalate, wherein a proportion of the calcium oxalate in the pigment is between 10% and 100% by weight of the pigment, and wherein said coated, wood-free paper has less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate." Claim 13 is directed to "[c]oated, wood-free paper comprising a pigment comprising calcium oxalate, wherein said coated, wood-free paper has an ISO brightness of over 80% and an opacity of over 80%, and wherein said coated, wood-free paper has less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate."

Hampl discloses a cigarette wrapping paper containing a white pigment in combination with a black pigment to increase opacity (col. 4, lines 23-28). The white pigment may comprise calcium carbonate (col. 5, lines 6-8), whereas the black pigment may be carbon or iron oxide (col. 5, lines 54-56). Hampl does not teach or suggest a method of reducing combustion residue of coated, wood-free paper or coated, wood-free paper, wherein the coated, wood-free paper has less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate. As acknowledged by the Examiner, Hampl also "does not teach the addition of calcium oxalate to the pulp and/or coating of the paper."

Briskin relates to a smoking product formed by treating oxidized cellulosic material with, for example, an oxalic acid and a calcium compound. Abstract. Insoluble calcium oxalate can be formed in the smoking product and it serves as a mineralizing or ashing component (col. 4, lines 5-25). Briskin discloses that oxalates are "effective ash-producing agents" (col. 4, lines 64-67), i.e., teaches the use of oxalates to produce ash (increase combustion residue). According to Briskin, at col. 3, line 39,

It has been found that *insufficient ash-forming ingredient* in the smoking product results in a coalescence or coagulation of the pyrolyzing carbohydrates to form a melt of materials during the smoking process. The result is a coagulative anaerobic pyrolysis which tends to smother the fire to the extent that the cigar or pipe or cigarette soon becomes extinguished. . . .

It is an object of this invention to produce and to provide a method for producing a smoking product of cellulosic material, and preferably oxidized cellulosic material, *containing ash-forming ingredients* of a type and concentration *to form an ash of sufficient coherence and porosity to enable the ash to build up on the end of the smoking product* without interfering with or blocking access of air to the burning area thereby to enable the desired burning rate to be maintained

Thus, Briskin is not even relevant to the claimed method or product. Assuming, *arguendo*, that one of ordinary skill would be motivated to combine Hampl and Briskin, the combination would suggest a method of increasing combustion residue or ash, not a method of reducing combustion residue wherein the coated, wood-free paper has less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate, as presently claimed. Thus, the combination of Hampl and Briskin teaches away from the claimed method. The combination of Hampl and Briskin fails to provide a method of reducing combustion residue while improving brightness and opacity of paper by using

calcium oxalate. Similarly, the combination of Hampl and Briskin fails to suggest coated, wood-free paper having less combustion residue than a coated, wood-free paper containing a pigment other than calcium oxalate. It is respectfully requested that the 35 U.S.C. § 103(a) rejection over Hampl and Briskin be withdrawn.

Claim 8 (1, 4, 31) was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hampl in view of Briskin, as applied to claims 1, 4, 7 (1, 4, 31), 10 (1, 4, 31), 11 (1, 4, 31)-16, and 31-34 above, further in view of U.S. Patent No. 1,934,638 ("Rafton") in item 9 of the Office Action. Applicant respectfully traverses this rejection.

For the reasons provided above, the combination of Hampl and Briskin fails to suggested the method of claim 1. Claim 8 ultimately depends from claim 1. Rafton fails to remedy the deficiencies of Hampl and Briskin. Thus, the 35 U.S.C. § 103(a) rejection over Hampl in view of Briskin, and further in view of Rafton should be withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all currently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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